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FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE							ATTY. DOCKET NO.: 464.1006 CON3		SERIAL NO.: 09/688,572			
									APPLICANT(S): SEUL, Michael					
									FILING DATE: October 17, 2000		GROUP: 1641			
U.S. PATENT DOCUMENTS														
*EXAMINER INITIAL		DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
PTD	AA	3	9	9	8	5	2	5	12/21/76	Giglia	350	160	08/21/75	
	AB	4	0	7	5	0	1	3	02/21/78	Ward et al.	96	1.5	09/13/76	
	AC	4	4	5	6	5	1	3	06/26/84	Kawai et al.	204	180	08/25/82	
	AD	4	5	7	5	4	0	7	03/11/86	Diller	204	67	10/24/84	
	AE	4	5	9	1	5	5	0	05/27/86	Hafeman et al.	435	4	04/05/84	
	AF	5	4	4	4	3	3	0	08/22/95	Leventis et al.	313	506	02/18/93	
	AG	5	5	8	7	1	2	8	12/24/96	Wilding et al.	422	50	11/14/94	
	AH	5	4	9	8	3	9	2	03/12/96	Wilding et al.	422	68.1	09/19/94	
	AI	5	8	5	5	7	5	3	01/05/99	Trau et al.	204	484	11/26/96	
PTD	AJ	6	0	3	3	5	4	7	03/07/00	Trau et al.	204	622	01/04/99	
	AK													
FOREIGN PATENT DOCUMENTS														
		DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
		AL	9	6	0	4	5	4	7	02/15/96	PCT	G01N	27/00	YES X
		AM												
		AN												
		AO												
		AP												
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)														
PTD	AR	Yeh, et al., "Assembly of ordered colloidal aggregates by electric-field-induced fluid flow," <i>Nature</i> , vol. 386.6: 57-59 (1997)												
1	AS	Giersig et al., "Formation of ordered two-dimensional gold colloid lattices by electrophoretic deposition," <i>J. Phys. Chem.</i> , vol. 97: 6334-6336												
PTD	AT	Seul et al., "Scale transformation of magnetic bubble arrays: coupling of topological disorder and polydispersity," <i>Science</i> , vol. 262 : 558 - 560 (1993)												
EXAMINER <i>Yusw</i>									DATE CONSIDERED 6/24/04					

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 2 of 2

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.: 464.1006 CON3

SERIAL NO.:  
09/688,572

## LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT(S): SEUL, Michael

FILING DATE: October 17, 2000

GROUP: 1641

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						
	BB						
	BC						
	BD						
	BE						
	BF						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	BG						
	BH						
	BI						

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BJ	Trau et al., "Field-Induced Layering of Colloidal Crystals," <i>Science</i> , vol. 272 : 706-709 (1996)
BK	Seul et al., "Domain Shapes and Patterns: The Phenomenology of modulated Phases," <i>Science</i> , vol. 267 : 476-483 (1995)
BL	Schena et al. "Quantitative Monitoring of Gene Expression Patterns with a Complementary DNA Microarray," <i>Science</i> , vol. 270 : 467-470 (1995)
BM	Haab et al. "Single Molecule Fluorescence Burst Detection of DNA Fragments Separated by Capillary Electrophoresis," <i>Analytical Chemistry</i> , vol. 67 (No. 18) : 3253-3256 (1995)
BN	Richetti, et al., <i>J. Physique Lettr.</i> , vol. 45 : L-1137 to L-1143 (1984)
BO	Sze, "MIS Diode and Charge-Coupled Device," <i>The Physics of Semiconductors</i> , Chapter 7, pp. 362-430 (2 <sup>nd</sup> Edition) (Wiley Interscience 1981)
BP	
BQ	
BR	

EXAMINER

*Person*

DATE CONSIDERED

6/24/01

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#9

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<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <small>(Use several sheets if necessary)</small> <i>O I P E JCS FEB 15 2002</i>									APPLICANT(S): SEUL, Michael				
									FILING DATE: October 17, 2000		GROUP: 1641		
U.S. PATENT DOCUMENTS													
*EXAMINER INITIAL		DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<i>PJD</i>	AB	4	4	9	9	0	5	2	2/12/85	Fulwyler	422	52	8/30/82
	AB	4	6	4	7	5	4	4	3/3/87	Nicoli et al.	436	518	6/25/85
	AC	4	8	2	2	7	4	6	4/18/89	Walt	436	528	6/25/86
	AD	4	9	9	4	3	7	3	2/19/91	Stavrianopoulos et al.	435	6	7/26/89
	AE	5	0	0	2	8	6	7	3/26/91	Macevicz	435	6	10/24/88
	AF	5	0	2	8	5	4	5	7/2/91	Soini	436	501	6/9/88
	AG	5	1	6	5	3	0	5	4/14/92	Betzig	359	368	1/10/91
	AH	5	1	1	4	8	6	4	5/19/92	Walt	436	528	9/19/89
	AH	5	1	3	2	2	4	2	7/21/92	Cheung	436	501	11/13/89
	AJ	5	1	3	2	0	9	7	7/21/92	Van Deusen et al.	422	82.09	9/4/90
<i>PJD</i>	AB	5	1	4	3	8	5	3	9/1/92	Walt	436	501	2/2/89
FOREIGN PATENT DOCUMENTS													
		DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
												YES	NO
<i>PJD</i>	AL	0	7	5	9	7	6	4	6/8/88	EP	C12Q	1/68	X
	AM	0	4	7	6	3	1	9	4/1/92	EP	C12Q	1/68	X
	AN	0	7	2	3	1	4	6	7/24/96	EP	G01N	21/64	X
<i>PJD</i>	AD	8	9	1	1	1	0	1	11/16/89	PCT	G01N	33/546	X
	AP	9	3	0	2	3	6	0	2/4/93	PCT	G01N	33/536	X
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)													
<i>PJD</i>	AQ	Peterson, et al. "Fiber optic pH probe for physiological use," Anal. Chem. Vol. 52, 864-869 (1980)											
<i>PJD</i>	AR	Peterson, et al, "Fiber-Optic Sensors for Biomedical Applications," Science, 13: 123-127 (1984).											
<i>PJD</i>	AS	Fuh, et al., "Single Fibre Optic Fluorescence pH Probe," Analyst, 112: 1159-1163 (1987).											
EXAMINER		<i>Jewell</i>						DATE CONSIDERED		6/24/04			

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<p style="text-align: center;">PJD</p>	BA	5	1	9	4	3	0	0	3/16/93	Cheung	427	213.31	1/18/89		
	BB	5	2	4	4	8	1	3	9/14/93	Walt et al.	436	172	4/20/92		
	BC	5	2	4	4	6	3	6	9/14/93	Walt et al.	427	82.07	1/25/91		
	BA	5	2	5	0	2	6	4	10/5/93	Walt et al.	422	82.07	1/21/92		
	BE	5	2	5	2	4	9	4	10/12/93	Walt	436	528	1/30/92		
	BF	5	2	5	4	4	7	7	10/19/93	Walt	436	172	9/19/91		
	BC	5	2	9	8	7	4	1	3/29/94	Walt et al.	250	227.23	1/13/93		
	BH	5	3	0	0	8	1	9	4/26/94	Prober et al.	435	6	1/16/92		
	BI	5	3	2	3	9	1	4	6/14/94	Walt et al.	422	82.07	11/25/92		
	BJ	5	3	6	7	6	5	3	11/8/94	Carr et al.	436	165	5/6/92		
<p style="text-align: center;">PJD</p>	BK	5	4	0	5	7	8	4	4/11/95	Van Hoegaerden	436	523	2/25/93		
	FOREIGN PATENT DOCUMENTS														
			DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
														YES	NO
	<p style="text-align: center;">PJD</p>	BL	0	3	0	6	1	2	1	4/1/93	PCT	C07H	21/00		X
		BM	9	3	2	4	5	1	7	12/9/93	PCT	C07K			X
		BN	9	7	1	4	0	2	8	4/17/97	PCT	G01N	15/10		X
		BO													
		BP													
	OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)														
<p style="text-align: center;">PJD</p>	BO	Barnard, et al., "A fibre-optic chemical sensor with discrete sensing sites," Nature, vol. 353: 338-340 (1991).													
	BR	Campian, et al. "Colored and Fluorescent Solid Supports," Innovation and Perspectives in Solid-Phase Synthesis . Ed: E. Birmingham (Mayflower, London), pp. 469-472 (1994).													
	BS	Pope, "Fiber optic chemical microsensors employing optically active silica microspheres," SPIE, vol. 2388 : 245-256 (1995).													
EXAMINER	<i>Tenow</i>							DATE CONSIDERED <i>8/24/01</i>							
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PP	CA	5	4	8	0	7	2	3	1/2/96	Klainer et al.	428	408	5/17/94
	CB	5	8	1	4	5	2	4	9/29/98	Walt et al.	436	518	12/14/95
	CC	5	4	9	6	6	9	7	3/5/96	Pope	250	227.5	1/3/94
	CD	5	5	1	2	4	9	0	4/30/96	Walt et al.	436	171	9/10/94
	CE	5	5	6	5	3	2	4	10/15/96	Still et al.	436	6	4/13/94
	CF	5	5	5	7	6	2	7	10/22/96	Lehnern	436	518	11/5/93
	CG	5	6	3	3	7	2	4	5/27/97	King et al.	356	445	8/29/95
	CH	5	6	3	3	9	7	2	5/27/97	Walt et al.	385	116	11/29/95
	CF	5	6	5	0	4	8	9	7/22/97	Lam et al.	530	334	6/19/91
	CJ	5	6	5	2	0	5	6	7/29/97	Margel	428	403	1/25/95
	CK	5	6	7	4	6	9	6	10/7/97	Zarling et al.	436	7.92	3/30/95
FOREIGN PATENT DOCUMENTS													
		DOCUMENT NUMBER					DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
											YES	NO	
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	CM												
	CN												
	CP												
	CP												
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)													
PP	CQ	Grazia et al., "In-vivo biomedical monitoring by Fiber-Optic System," Journal of Lightwave Technology, 13, 1396-1406 (1995).											
PP	CR	Bangs, "Immunological Applications of Microspheres," The Latex Course, Bangs Laboratories (April 1996)											
PP	CS	"Fluorescent Microspheres (Tech. Note #19)," Bangs Laboratories (1997)											
EXAMINER <i>Juan</i>								DATE CONSIDERED <i>6/24/04</i>					
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O I P E J C LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)  FEB 15 2002		APPLICANT(S): SEUL, Michael											
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PJP	DA	5	6	3	0	8	9	4	11/25/97	Pinkel et al.	422	68.1	5/2/95
	DB	5	7	0	0	8	9	7	12/23/97	Klainer et al.	528	15	5/30/95
	DD	5	7	2	9	9	7	6	7/14/98	Leland et al.	422	52	6/5/95
	DD	5	9	3	9	0	2	1	8/17/99	Hansen et al.	422	55	1/23/97
	DE	5	9	6	1	9	2	3	10/5/99	Nova et al.	422	684	9/30/96
	DF	5	9	6	5	4	5	2	10/12/99	Kovacs	436	149	7/9/96
	DG	6	0	4	8	6	9	0	4/11/00	Heller et al.	435	6	5/14/97
	DH	6	0	9	0	5	4	5	7/18/00	Wohlstadter et al.	435	6	6/8/97
	DI	6	0	9	0	9	1	2	7/18/00	Lebl et al.	530	300	11/12/99
PJP	DJ	6	2	0	0	7	3	7	3/13/01	Walt et al.	430	320	8/24/95
	DK												
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	DL												
	DM												
	DN												
	DO												
	DP												
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)													
PJP	DQ	Egner, et al., "Tagging in combinatorial chemistry: the use of coloured and fluorescent beads," Chem. Commun. pp. 735-736 (1997)											
PJP	DR	Fulton, et al., "Advanced multiplexed analysis with the FlowMetrix system," Clinical Chemistry, vol. 43:9 , pp. 1749-1756 (1997).											
PJP	DS	Scott et al., "Properties of fluorophores on solid phase resins; implications for screening, encoding and reaction monitoring," Bioorganic & Medicinal Chemistry Letters, 7:12, pp. 1567-1572 (1997).											
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EA							
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES
							NO
EG							
EM							
EN							
EO							
EP							
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EQ	Healey et al., "Fiberoptic DNA sensor array capable of detecting point mutations," Analytical Biochemistry, vol. 251, pp. 270-279 (1997).						
ER	"Microsphere Selection Guide," Bangs Laboratories, Inc. (Fisher, IN) (September 1998)						
ES							
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